

## CLAIMS

What is claimed is:

1. An arrow broadhead comprising:

a main body having:

5 a longitudinal axis;

a three-sided chisel tip, said tip generally having the shape of a three-sided equilateral pyramid, the sides of which, being partially cut away, meet at a common vertex that is coincident with said longitudinal axis and which serves as a forwardmost point of the tip, the intersection of each pair of adjacent sides forming a sharpened edge;

a generally hour-glass-shaped portion continuous with said three-sided chisel tip;

a cylindrical portion continuous with said generally hour-glass-shaped portion;

15 a rearward-facing shoulder formed at the junction of said cylindrical portion and said generally hour-glass-shaped portion;

three blade installation slots, an anterior portion of each slot having a forward-facing recess, and each blade installation slot being aligned with an associated sharpened edge and positioned such that the anterior portion of the slot is adjacent a rearmost point on the associated sharpened edge, and a posterior portion of the slot is in the cylindrical portion; and

a threaded portion continuous with said cylindrical portion for securing the

main body to an arrow shaft;

three laminar blades, each of which is insertable within a blade installation slot, each laminar blade having an anterior tab that fits into a forward-facing recess, a posterior extension that fits into the posterior portion of the blade installation slot, and a honed straight edge, each laminar blade being shaped so that when it is inserted within a blade installation slot, the honed straight edge and the sharpened edge of the chisel tip make a generally straight line; and

an annular blade retention collar which slides over said cylindrical portion and traps the posterior extension of each laminar blade, said annular blade retention collar being secured in place by an attached arrow shaft.

2. The arrow broadhead of claim 1, wherein each side of the three-sided pyramidal chisel tip is partially cut away with a straight wall trough which extends from a point on the side set back from the vertex to a point of about minimum diameter on the hour-glass-shaped portion.

3. The arrow broadhead of claim 1, wherein all that remains of each side of the three-sided pyramidal chisel tip is a planar V-shaped portion continuous with the common vertex.

4. The arrow broadhead of claim 1, wherein each laminar blade has a central aperture which reduces the effect of crosswinds on flight of arrows equipped with the arrow broadhead.

5. The arrow broadhead of claim 1, wherein each straight-walled trough has an internal angle of about 138 degrees between the walls.

6. The arrow broadhead of claim 1, wherein the sharpened edges of each side of the equilateral pyramid form an angle of about 46 degrees.

5 7. The arrow broadhead of claim 1, wherein both intersecting halves of each V-shaped portion are of generally equal and uniform width.

8. An arrow broadhead comprising:

a main body having a three-sided trocar tip, said tip having a trio of sharpened straight edges which intersect at a common vertex;

10 three laminar blades mountable on the main body, each laminar blade having a honed edge which is aligned with and forms a generally straight line with one of the sharpened straight edge when the blade is mounted on the main body.

9. The arrow broadhead of claim 8, wherein each side of the trocar tip is planar and partially cut away, being hollowed with a straight-walled trough.

15 10. The arrow broadhead of claim 9, wherein the walls of the straight-walled trough intersect an an angle of about 138 degrees.

11. The arrow broadhead of claim 8, wherein each pair of sharpened straight edges intersect at an angle of about 46 degrees.

12. The arrow broadhead of claim 8, wherein each laminar blade has a central aperture, which reduces cross wind effects on the broadhead when in flight.

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13. The arrow broadhead of claim 8, wherein said main body further comprises:  
a generally hour-glass-shaped portion continuous with the trocar tip;  
a cylindrical portion continuous with said generally hour-glass-shaped portion;  
a rearward-facing shoulder formed at the junction of said cylindrical portion and

10 said generally hour-glass-shaped portion;

three blade installation slots, an anterior portion of each slot having a forward-facing recess, and each blade installation slot being aligned with an associated sharpened edge and positioned such that the anterior portion of the slot is adjacent a rearmost point on the associated sharpened edge, and a posterior portion of the slot is  
15 in the cylindrical portion; and

a threaded portion continuous with said cylindrical portion for securing the main body to an arrow shaft.

14. The arrow broadhead of claim 13, wherein each laminar blade includes an anterior tab that fits into a forward-facing recess, and a posterior extension that fits into  
20 the posterior portion of the blade installation slot, and said arrow broadhead further comprises an annular blade retention collar which slides over said cylindrical portion

and traps the posterior extension of each laminar blade, said annular blade retention collar being secured in place by an attached arrow shaft.

15. An arrow broadhead comprising:

5 a main body having a three-sided trocar tip, said tip having a trio of sharpened straight edges, each of which is formed by the intersection of adjacent pairs of planar sides of the trocar tip, said trio of sharpened straight edges intersecting at a common vertex which serves as the forwardmost penetrating point of the broadhead;

10 three laminar blades mountable on the main body, each laminar blade having a honed edge which is aligned with and forms a generally straight line with one of the sharpened straight edge when the blade is mounted on the main body.

16. The arrow broadhead of claim 15, wherein each of the three planar sides of the trocar tip is partially cut away, being hollowed with a straight-walled trough, the walls of which intersect an an angle of about 138 degrees.

15 17. The arrow broadhead of claim 15, wherein each pair of sharpened straight edges intersect an an angle of about 46 degrees.

18. The arrow broadhead of claim 15, wherein each laminar blade has a central aperture, which reduces cross wind effects on the broadhead when in flight.

19. The arrow broadhead of claim 15, wherein said main body further comprises:  
a generally hour-glass-shaped portion continuous with the trocar tip;  
a cylindrical portion continuous with said generally hour-glass-shaped portion;  
a rearward-facing shoulder formed at the junction of said cylindrical portion and  
5 said generally hour-glass-shaped portion;

three blade installation slots, an anterior portion of each slot having a forward-  
facing recess, and each blade installation slot being aligned with an associated  
sharpened edge and positioned such that the anterior portion of the slot is adjacent a  
rearmost point on the associated sharpened edge, and a posterior portion of the slot is  
10 in the cylindrical portion; and

a threaded portion continuous with said cylindrical portion for securing the main  
body to an arrow shaft.

20. The arrow broadhead of claim 19, wherein each laminar blade includes an  
anterior tab that fits into a forward-facing recess, and a posterior extension that fits into  
15 the posterior portion of the blade installation slot, and said arrow broadhead further  
comprises an annular blade retention collar which slides over said cylindrical portion  
and traps the posterior extension of each laminar blade, said annular blade retention  
collar being secured in place by an attached arrow shaft.